



**COST-PLUS-FIXED-FEE
RESEARCH & DEVELOPMENT SUBCONTRACT**

Subcontract No. 126RPM2

BETWEEN

**CALIFORNIA INSTITUTE OF TECHNOLOGY
JET PROPULSION LABORATORY
(The "Institute" or "JPL")
4800 OAK GROVE DRIVE
PASADENA, CALIFORNIA 91109-8099**

AND

**REFERENCE PICKOFF MIRROR MAKERS, INC
45 RPM ROAD
RPM, CA 91111-2111**

**THIS CONTRACT FOR
SPACE INTERFEROMETRY MISSION (SIM) BEAM LAUNCHER
REFERENCE PICKOFF MIRROR
IS A
SUBCONTRACT UNDER JPL's NASA PRIME CONTRACT**

TASK ORDER NO. NMO710776

A DO - C9 Rating is assigned to this Subcontract under DMS Regulation 1

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The following documents are incorporated into and made a part of this Subcontract.

World Wide Web: <http://acquisition.jpl.nasa.gov/e2000.htm>

GENERAL PROVISIONS (GPs): Cost-Reimbursement with Commercial Organizations
Subcontract R 9/04, with Incorporated Exhibits.

- Management of Government Property in the Possession of Contractors, Form JPL 0968 R 9/04
- Release of Information, Form JPL 1737 R 9/99
- Affiliate Access Report, Form JPL 1943 R 2/00
- Notification to Prospective Contractors of JPL's Ethics Policies and Anti-Kickback Hotline, Form JPL 2385 R 7/91
- Certifications, Form JPL 2892 R 8/01
- Asbestos Notification, Form JPL 2895 R 9/98
- Notice of Potential Tax Withholding R 7/03

ADDITIONAL GENERAL PROVISIONS (AGPs)

Cost Accounting Standards and Administration of Cost Accounting Standards R 4/99

-or-

Disclosure and Consistency of Cost Accounting Practices, and Administration of Cost Accounting Standards R 4/99

New Technology R 8/01

-or-

Patent Rights - Retention By The Contractor (Short Form) R 4/99

PREAMBLE

This Subcontract, entered into on _____ by and between the CALIFORNIA INSTITUTE OF TECHNOLOGY (hereinafter called the "Institute" or "JPL"), a corporation organized and existing under the laws of the State of California, and {Name of Subcontractor} (hereinafter called the "Subcontractor"), a corporation organized and existing under the laws of the State of {State of Incorporation} and constituting a subcontract under prime contract with NASA;

WITNESSETH THAT:

The Subcontractor agrees to furnish and deliver the supplies and to perform the services set forth in this Subcontract for the consideration stated herein.

SCHEDULE

ARTICLE 1. STATEMENT OF WORK AND DELIVERY

On or Before

- | | | |
|-----|--|--|
| 1.0 | The contractor shall provide the necessary skills, services, equipment, materials, documentation, software, and facilities to fabricate and assemble prototypes for the SIM Reference Pickoff Mirror (RPM), in accordance with Exhibit I, and to allow JPL to assess the design and processes for manufacturability. Specifically: | |
| 2.0 | Kick-Off Meeting | |
| | Conduct a kick-off meeting at the contractor's facility. Present, in narrative and flow-chart format, a Schedule, a Manufacturing Plan, and a Quality Assurance Plan for JPL review. Recommend modifications to the JPL design that may improve manufacturability while meeting the performance specification. | Draft 2 Weeks ADC
Final 4 Weeks ADC |
| 3.0 | Reviews and Reporting | |
| | 3.1 Provide the JPL Contract Technical Manager (CTM) with informal status reports via e-mail or telecon. | Weekly |
| | 3.2 Conduct Program Review meetings at the contractor's facility among the principal participants to review Technical and Program status, Manufacturing progress and Quality Assurance issues. | Monthly |
| | 3.3 Submit a Test Plan for JPL review and approval. JPL reserves the right to insert critical inspection point(s) into the Plan. Notify the JPL CTM not less than 24 hours prior to any test or inspection, which is called out in the Test Plan as a critical inspection point. | Draft 2 Weeks ADC
Final 4 Weeks ADC |
| | 3.4 Provide a data package for each deliverable RPM assembly, consisting of inspection reports on a 100% basis, of all critical dimensions called out in the assembly drawings, and test reports containing digital photographs and interferograms. | As generated |
| 4.0 | Hardware | |
| | 4.1 Deliver one (1) prototype RPM assembly | 12 Wks ADC |
| | 4.2 Deliver one (1) final configuration-type RPM assembly | 18 Wks ADC |
| | 4.3 Deliver two (2) final configuration-type RPM assemblies | 22 Wks ADC |
| 5.0 | Down-Selection Proposal | |
| | Submit a detailed Technical and Cost proposal for the fabrication of thirty (30) flight-qualified RPM assemblies. | 24 Wks ADC |

6.0 Delivery Requirements

- 6.1 Except as otherwise provided in this Subcontract, the point of inspection, acceptance and delivery of all supplies deliverable under this Subcontract shall be the Jet Propulsion Laboratory, 4800 Oak Grove Drive, Pasadena, California 91109. All such supplies shall be packaged, packed, boxed, or crated in such a manner to ensure safe delivery and shall be shipped prepaid and at the Subcontractor's expense to the point of delivery.
- 6.2 Time is of the essence in the performance of this Subcontract

If New Technology is Applicable

- 6.3 The Subcontractor shall furnish the cognizant JPL Negotiator with the annual and final reports of reportable items described in the Article entitled "New Technology." A copy of transmittal letters for those reports shall also be sent to the Intellectual Property Office (IPO).
- Interim report every 12 months commencing on date of contract. Final report within 3 months of completion of work

If Patent Rights is Applicable

- 6.4 The Subcontractor shall provide the cognizant JPL Negotiator with the annual and final reports of subject inventions described in the Article entitled "Patent Rights - Retention by the Contractor (Short Form)." A copy of transmittal letters shall be sent to the Intellectual Property Office (IPO).
- Interim report every 12 months commencing on date of contract. Final report prior to completion of work

- 6.5 Form SF 294, "Subcontracting Report for Individual Contracts",
- 6.6 Form SF 295, "Summary Subcontract Report"
- SF 294 from date of Subcontract thru March 31 and September 30 and semiannually thereafter through completion
- SF 295 from date of Subcontract thru September 30th and annually thereafter through completion

7.0 JPL will:

Provide proposal instructions and down-selection criteria for the flight hardware build phase, prior to the due date for item 5.0, above.

8.0 The following Exhibits are incorporated into this contract and made part of the requirements:

- 8.1 Exhibit I, JPL D-29325A, "SIM XMET Beam Launcher Reference Pickoff Mirror", dated 21 September 2004.
- 8.2 Exhibit II, Reference Pick-Off Mirror (RPM) Functional Description Document, dated 21 September 2004.

ARTICLE 2. ALLOWABLE COSTS, FIXED FEE AND PAYMENT.

1.0 Estimated Cost and Fixed Fee.

Estimated Cost: \$
Fixed Fee: \$
Total: \$

Subject to any equitable adjustment, which is otherwise provided for under the provisions of this Subcontract, the fixed fee stated above shall remain constant for the performance of the work under this Subcontract. There shall be no adjustment in the amount of fixed fee or any claim for increased fixed fee because of errors or omissions made in computing the estimated cost or the fact that the actual cost varies from the estimated cost.

The total amount allotted to this Subcontract is \$

2.0 Precontract Costs. There shall be no allowance for costs incurred prior to the date of this Subcontract. If this Definitive Contract has been preceded by a Letter Subcontract, the phrase "date of this Subcontract" as used in this paragraph 2.0 shall mean the effective date of the Letter if incurred after the date of this Subcontract.

3.0 Payment of Fixed Fee. The fixed fee payable under this Subcontract shall be paid to the Subcontractor in monthly installments based upon the percentage of work completed as estimated by the Subcontractor and approved by JPL; subject, however, to the provisions of the "Allowable Cost and Payment" Article of this Subcontract. Billing Requirements:

3.1 All invoices submitted to JPL for the reimbursement of costs incurred for authorized work must conform to these requirements. All invoices submitted under this Subcontract should be COMMERCIAL type invoices. Billings prepared on a Public Voucher SF # 1034 form are not acceptable for payment purposes. The invoices should be numbered in a separate series for proper reference and must contain the following information:

3.1.1 Subcontractor's name and address

3.1.2 JPL Subcontract number

3.1.3 Total Subcontract value

3.1.4 Total allotted cost

3.1.5 Total allotted fee

3.1.6 Total allotted cost and fee

3.1.7 Invoice date

- 3.1.8 Invoice number
- 3.1.9 Billing Period of performance
- 3.1.10 Current and cumulative cost column
- 3.1.11 Major cost elements
- 3.1.12 Fixed fee earned and fee reserve/withhold
- 3.1.13 Indirect billing rates used, pool, and bases
- 3.1.14 Certification of invoice by authorized Subcontractor official, including printed name and telephone number
- 3.2 The Subcontractor must have an adequate accounting and billing system to capture the actual costs at the authorized level as stated in the Subcontract. The Subcontractor is responsible for tracking costs and ensuring they do not exceed the authorized amount allotted for the Subcontract and, if applicable, the Contract Work Order (CWO).
- 3.3 The Subcontractor is responsible for preparing and submitting invoices for reimbursement according to the terms of the Subcontract.
- 3.4 Invoices shall be submitted, in triplicate, to JPL Subcontract Payment Group, M/S 601-208, 4800 Oak Grove Drive, Pasadena, California 91109.
- 3.5 Each invoice shall include separate columns for current costs and fee, and cumulative costs and fee at both the Subcontract and, if applicable, the CWO summary level. Cumulative costs are necessary to ensure that the amounts billed do not exceed the total estimated ceiling costs of the Subcontract and/or the current Subcontract maximum authorized funding levels.
- 3.6 Each invoice shall include current and cumulative amounts billed by major cost elements, Subcontract reserves, and adjusted amounts claimed as of the date of billings.
- 3.7 Detailed billing instructions and samples that will ensure the correct processing of your invoices can be found at the following link:

http://acquisition.jpl.nasa.gov/pdf/CPFF_Billing.pdf.
- 3.8 When submitting an invoice for the current billing period, include both costs and fixed fee on the same invoice. A backup detail of the fixed fee earned calculation shall be submitted along with the monthly invoice to demonstrate the percentage of completion to date by the Subcontractor.
- 3.9 A copy of the approved indirect billing rates applicable to this Subcontract from the Subcontractor's cognizant government auditor must be submitted with the first invoice and whenever there is a rate change. If no cognizant government auditor is assigned, submit the proposed rates to the JPL negotiator and JPL Subcontractor Audit & Compliance Group, Mail Stop 601-207. When the Subcontractor adjusts the billing rates to reflect actual year-end allowable costs, the adjusted rates shall be submitted on a separate invoice. The Subcontractor must provide notice of the updated billing rate to the JPL Supplier Payment Group. Upon submission, the invoice will be reviewed for adequacy. Any invoice found not to be in compliance with this request will be deemed inadequate and

will be returned for correction and resubmission. In accordance with paragraph (a)(2) of the ALLOWABLE COST AND PAYMENT General Provision, JPL may request additional documentation to support claimed costs.

- 3.10 Final annual incurred indirect cost rate proposals shall be submitted within 6 months after expiration of the Subcontractor's fiscal year, as required by the ALLOWABLE COST AND PAYMENT General Provision.
- 3.11 The completion invoice shall be marked "Final." The Subcontractor should not prepare or submit the final invoice until an audit has been completed of the Subcontractor's fiscal years during which costs under this Subcontract have been incurred. A separate column shall be prepared for each of the Subcontractor's fiscal years showing the major cost elements. Any direct costs questioned as a result of the audit of costs shall be excluded from the applicable Subcontractor's fiscal year billings. Fringe, overhead, and G&A shall be computed using the final rates and listed by Subcontractor's fiscal year. Any amount billed in excess of the Subcontract value will be identified and subtracted from the total amount billed.
- 3.12 As assurance that a responsible official within your organization has reviewed your invoices, each invoice shall carry the following certification:

"I hereby certify that the above bill is correct and just, that payment therefore has not been received, and that the bill is presented with the knowledge that the amount paid hereunder will become the basis of a claim against the United States Government."

Authorized Signature

(*Typed name of official*)

Telephone number:

- 4.0 Allowable Costs. For the purpose of determining the amounts payable to the Subcontractor under this Subcontract, the allowability of costs shall be determined in accordance with the General Provision (GP) of this Subcontract entitled "Allowable Cost and Payment;" provided, however, that in determining the allowability of costs, the advance understandings, if any, on particular items of cost set forth below shall be given effect. In the event of any inconsistency between such advance understandings and the cost principles referred to in the "Allowable Cost and Payment" GP referenced above, the cost principles shall prevail.

- 4.1 Direct Costs: No Advance Understanding
- 4.2 Indirect Costs: No Advance Understanding

IN WITNESS WHEREOF, the parties hereto have executed this Subcontract as of the day and year first above written.

CALIFORNIA INSTITUTE OF TECHNOLOGY

By

G.T. Rosalia
Subcontract Manager

{TYPE NAME OF SUBCONTRACTOR HERE}

By

(Signature)

(Typed Name)

(Title)

Instructions to Subcontractor: Do not insert date on Preamble page.